

joining the contact housing to either side of the main housing with the pusher proximate one of the ends of the actuator by sliding the tenon in one of the mortises using linear motion of the contact housing from in front of the main housing; and

resiliently locking the contact housing to the main housing by engaging the rib with the snap lock element responsive to the linear motion of the contact housing from in front of the main housing.

Remarks

Claims 1 and 3-21 are pending in the application.

Applicants' undersigned attorney would like to thank the examiner for the courtesies extended during the recent telephone interview where the deficiencies with the cited references were discussed.

Applicants traverse the finality of the action. As noted during the interview, the cited McGary reference, U.S. Patent No. 3,290,628, does not disclose that a mortise/tenon can be used to secure an auxiliary switch to a housing, as stated in the final action. Instead, McGary discusses that a mortise and tenon can be used to connect contact carriers in a main switch and a contact assembly. Screws are used to secure the auxiliary switch to a housing. In fact, the device would be inoperative without the screws as movement of the main switch contact carrier would cause the entire auxiliary switch to move.

In view of the above, applicants submit that the finality of the action should be withdrawn for proper consideration of the teachings of the McGary reference.

By this amendment, the independent claims have been amended to specify resilient locking a contact housing actuated by linear motion of the contact housing. The added limitations further distinguish these claims from the cited references.

Applicants traverse the rejection of claims 1 and 3-21 as obvious over Lehman et al. U.S. Patent No. 4,774,484 in view of McGary U.S. Patent No. 3,290,628.

Independent claim 1 specifies a contact assembly for use in an electrical switching apparatus having an actuator. The contact assembly comprises a housing enclosing an electrical contact and a pusher selectively actuatable by the actuator to operate the contact. Means are provided for joining the housing to the electrical switching apparatus comprising a tenon on the housing received in a mortise on the electrical switching apparatus using linear motion of the housing from in front of the electrical switching apparatus. Means are provided actuated by the linear motion of the housing from in front of the electrical switching apparatus for resiliently locking the housing to the electrical switching apparatus.

Lehman et al. disclose a contact assembly having a housing including L-shaped ribs inserted by moving the housing toward the electrical switching apparatus, as shown in Fig. 9, to be received in openings in the electrical switching apparatus. The housing is then moved sideways so the L-shaped ribs engage the sides of the openings. Additionally, a flexible lever 36 has a projecting knob which when so mounted is received in a further opening 162 in the electrical switching apparatus. The relationship is possible owing to the use of two axis motion in that the contact assembly housing is first moved toward the contactor housing to deflect the lever arm and then

moved sideways for the ribs to engage the housing and the lever to flex inwardly so that the knob 138 is received in the opening 162.

As admitted in the action, Lehman et al. do not disclose or suggest a mortise and tenon joint.

McGary discloses use of a mortise and tenon to interconnect contact carriers in a main switch and a contact assembly. The main switch contact carrier having a tenon 43 moves up and down. The tenon 43 is inserted in a mortise 67, see Fig. 6, to cause a contact carrier on the contact assembly to likewise move up and down. The mortise and tenon do not mount the contact block to the main housing. Instead, the contact block is mounted to the main housing using screws 110.

The action indicates that a skilled artisan would have substituted the mortise/tenon of McGary for the locking means of Lehman et al. to provide a secure engagement. In fact, the engagement in McGary is provided by screws, rather than the mortise and tenon. Therefore, the motivation is not present and the combination is improper.

Claim 1, as amended, specifies that the housing is joined at the electrical switching apparatus using linear motion of the housing from in front of the electrical switching apparatus and means actuated by the linear motion of the housing from in front of the electrical switching apparatus for resiliently locking the housing to the electrical switching apparatus. This is a single axis motion. Lehman et al. require a dual axis motion. This is apparent in viewing Figs. 8-13 which shows the auxiliary contact must first be positioned along side the main housing and then moved in a transverse direction, as shown in Figs. 9 and 12 to actuate the lever and engage the hooks in the openings, and

then move the auxiliary contact in a second axis motion, see Figs. 10 and 13, to lock the device. Such two axis motion required by Lehman et al. to actuate the locking lever is inconsistent with the use of a mortise and tenon. Moreover, it does not result in a structure in which the resilient locking means is actuated by the linear motion of the housing from in front of the electrical switching apparatus.

Therefore, in addition to the combination being improper, the combination would not result in the claimed invention.

For the above reasons, applicants submit that the combination of the reference is improper. Therefore, claim 1 and its dependent claims 3-5 are believed allowable and withdrawal of the rejection is requested.

Independent claim 6 specifies an electrical switching system comprising a main housing enclosing an actuable apparatus including an actuator extending outwardly of the main housing. A contact housing encloses an electrical contact and a pusher selectively actuable by the actuator to operate the contact. A mortise on one of the main housing and contact housing and a tenon on the other of the main housing and contact housing join the contact housing to the main housing using linear motion of the contact housing from in front of the main housing. A snap lock actuated by the linear motion of the contact housing from in front of the main housing resiliently locks the contact housing to the main housing.

Independent claim 6 is believed allowable for the same reasons discussed above relative to claim 1. Particularly, the mounting structure for the two references are distinct and are not combinable. Therefore, claim 6 and its dependent claims 7-12 are believed allowable. These dependent claims also specify details of the construction which further distinguish them from the

cited references. For example, claim 9 specifies that the main housing comprises first and second parallel ribs having facing channels to define the mortise and a third rib extending angularly from the first and second ribs. No such ribs are disclosed in any of the references. Claim 10 specifies that the snap lock comprises a flexible web extending from the contact housing with a projection on the web engaging the third rib. Again, there is no structure in either of the cited references.

Independent claim 13 specifies an electrical switching apparatus comprising a main housing enclosing an actuable apparatus including an actuator having opposite ends extending outwardly of opposite sides of the main housing. A contact housing encloses an electrical contact and a pusher selectively actuable by the actuator to operate the contact. A mortise on each side of the main housing and a tenon on each side of the contact housing join the contact housing to either side of the main housing with the pusher proximate one of the ends of the actuator using linear motion of the contact housing from in front of the main housing. A snap lock actuated by the linear motion of the contact housing from in front of the main housing resiliently locks the contact housing to the main housing .

Independent claim 13 and its dependent claims 14-19 are believed allowable for the same reasons as discussed above relative to claims 1 and 3-12. Additionally, neither reference discloses a mortise on each side of the main housing and a tenon on each side of the contact housing.

Independent claim 20 specifies the method of mounting a contact block to an electrical switching apparatus, comprising: providing a main housing enclosing an actuable apparatus including an actuator having opposite ends extending outwardly of opposite sides of the main housing and a mortise on each side of the main housing aligned with a rib; providing a contact housing enclosing an electrical contact and a pusher selectively actuable by the actuator to operate

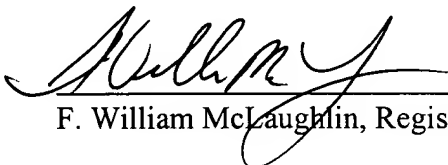
the contact and having a tenon and a snap lock element; joining the contact housing to either side of the main housing with the pusher proximate one of the ends of the actuator by sliding the tenon in one of the mortises using linear motion of the contact housing from in front of the main housing; and resiliently locking the contact housing to the main housing by engaging the rib with the snap lock element responsive to the linear motion of the contact housing from in front of the main housing.

Claim 20 and its dependent claim 21 are believed allowable for the same reasons discussed above relative to claims 1 and 3-19. Additionally, the references do not disclose or suggest resiliently locking a contact housing to a main housing by engaging a rib on the main housing with the snap lock element.

For the above reasons, claims 1 and 3-21 are believed allowable and withdrawal of the rejection is requested.

Reconsideration of the application and allowance and passage to issue are requested.

Respectfully submitted,


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Marked up version

In the Claims

Please amend claims 1, 6 13 and 20 as follows:

1. (Twice Amended) A contact assembly for use in an electrical switching apparatus having an actuator, comprising:

a housing enclosing an electrical contact and pusher selectively actuable by the actuator to operate the contact;

means for operatively joining the housing to the electrical switching apparatus using linear motion of the housing from in front of the electrical switching apparatus comprising a tenon on the housing received in a mortise on the electrical switching apparatus; and

means actuated by the linear motion of the housing from in front of the electrical switching apparatus for resiliently locking the housing to the electrical switching apparatus.

6. (Amended) An electrical switching system comprising:

a main housing enclosing an actuable apparatus including an actuator extending outwardly of the main housing;

a contact housing enclosing an electrical contact and a pusher selectively actuable by the actuator to operate the contact;

a mortise on one of the main housing and contact housing and a tenon on the other of the main housing and contact housing for joining the contact housing to the main housing using linear motion of the contact housing from in front of the main housing; and

a snap lock actuated by the linear motion of the contact housing from in front of the main housing for resiliently locking the contact housing to the main housing.

13. (Amended) An electrical switching system comprising:

a main housing enclosing an actuatable apparatus including an actuator having opposite ends extending outwardly of opposite sides of the main housing;

a contact housing enclosing an electrical contact and a pusher selectively actuatable by the actuator to operate the contact;

a mortise on each side of the main housing and a tenon on each side of the contact housing for joining the contact housing to either side of the main housing with the pusher proximate one of the ends of the actuator using linear motion of the contact housing from in front of the main housing; and

a snap lock actuated by the linear motion of the contact housing from in front of the main housing for resiliently locking the contact housing to the main housing.

20. (Amended) The method of mounting a contact block to an electrical switching apparatus, comprising:

providing a main housing enclosing an actuatable apparatus including an actuator having opposite ends extending outwardly of opposite sides of the main housing and a mortise on each side of the main housing aligned with a rib;

providing a contact housing enclosing an electrical contact and a pusher selectively actuatable by the actuator to operate the contact and having a tenon and a snap lock

element;

joining the contact housing to either side of the main housing with the pusher proximate one of the ends of the actuator by sliding the tenon in one of the mortises using linear motion of the contact housing from in front of the main housing; and

resiliently locking the contact housing to the main housing by engaging the rib with the snap lock element responsive to the linear motion of the contact housing from in front of the main housing.